



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,507	12/03/2003	Tsugio Sudou	VX032578	3767
21369	7590	05/18/2005	EXAMINER	
VARNDELL & VARNDELL, PLLC			CHIN, GARY	
106-A S. COLUMBUS ST.			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			3661	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.  
The communication will be placed in the application file when it is received.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/725,507	SUDOU, TSUGIO
	<b>Examiner</b>	<b>Art Unit</b>
	Gary Chin	3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM

#### THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed

- after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 December 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/3/03.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

Application/Control Number: 10/725,507

Art Unit: 3661

## **DETAILED ACTION**

### *Drawings*

1. The drawings are objected to because in figure 2, "running state detection unit" should be labeled as "53" instead of "51" as shown. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The disclosure is objected to because of the following informalities: On page 4 of the specification, line 6, "the detection means (73)" should be "the detection means (53)". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. Claims 3-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 3, the alternative expressions “and/or” and “one or more first vehicles” render the claim vague and indefinite. Further, it is unclear as to the relationship among the second vehicle, a plurality of vehicles and one or more first vehicles. Still further, the recitation on lines 6-9 is so contextually unclear and cannot be comprehended without further clarification.

As per claim 4, the recitation on lines 3-7 is technically unclear. Further, it is unclear as to what “production” is the claim directed to. Moreover, is the “production” on line 7 referred to the same on line 6? If so, “said production” should be recited, otherwise, distinction should be made between them.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 as best understood in view of the aforementioned 112 deficiencies are rejected under 35 U.S.C. 102(e) as being anticipated by Dix (patent no. 6677854).

As per claim 1, figures 1, 3 and columns 15-17 (also see the abstract) of the Dix reference clearly disclose the claimed maintenance scheduling apparatus for making up maintenance

Application/Control Number: 10/725,507

Art Unit: 3661

schedules for a plurality of vehicles including the detection means (items 51, 56 in fig. 3 and col. 5) for detecting operating situations or vehicular states of the vehicles and a scheduling means (item 200 and cols. 15-17) for making up maintenance schedules for the vehicles to prevent scheduling collisions and as such can avoid more vehicles than a predetermined number of vehicles from being suspended in operation at the same time as claimed.

As per claim 2, the claimed position storage means for storing positional information of maintenance locations is shown in item 209, figure 5 (also see col. 12) of the Dix reference. The Dix reference further discloses the use of the transmitted data including the claimed present position of the vehicle (col. 5, lines 36-40) and fuel consumption (col. 5, lines 23-25) in determining the maintenance schedules.

As per claim 3, the Dix reference in columns 15-16 clearly teaches that the maintenance schedule for the second vehicle is based upon the maintenance schedule of the first vehicle and the vehicular state of the second vehicle as claimed.

6. The additional references are cited to show the related systems. Applicant(s) should consider them carefully when responding to the current office action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Chin whose telephone number is (571) 272-6959. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

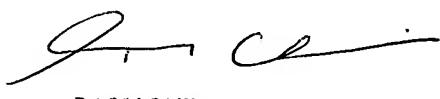
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/725,507  
Art Unit: 3661

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

\*\*\*



GARY CHIN  
**PRIMARY EXAMINER**